

**Notice of Allowability**

Application No.

09/318,105

Examiner

Herng-der Day

Applicant(s)

GERLOVIN ET AL.

Art Unit

2128

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendments received 8/19/05 and 10/14/05.
2. ☒ The allowed claim(s) is/are 1-2, 5-8, 11-15, 17-20, and 23-26, now renumbered as 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

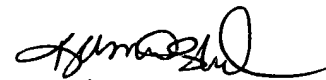
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 10252005.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
KAMINI SHAH  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. This communication is in response to Applicants' Amendment to Office Action dated June 16, 2005, faxed August 19, 2005, and Applicants' Second Amendment faxed October 14, 2005.

1-1. Claims 1, 8, 15, 19, and 24 have been amended. Claims 3-4, 9-10, 16, and 21-22 have been cancelled. Claims 1-2, 5-8, 11-15, 17-20, and 23-26 are pending.

1-2. Claims 1-2, 5-8, 11-15, 17-20, and 23-26 have been examined and allowed.

### ***Reasons for Allowance***

2. The following is an Examiner's statement of reasons for allowance:

2-1. The closest prior art of record discloses:

(1) The Autodesk Mechanical Desktop is a feature-based parametric solid modeler capable of linking variable names to an external parameter file (Fane "Your Table Is Waiting...").

(2) The IBM IDM system supports a callback feature that allows an application to register methods to be invoked on specific object events (Cottrell et al., "CHDStd – A Model for Deep Submicron Design Tools");

(3) The PROMODEL applies bi-directional OLE technology to connect FlowCharter with ProcessModel (Gladwin et al., "Introduction to ProcessModel and ProcessModel 9000").

2-2. Independent claim 1 is directed at a method running a computer-aided design (CAD) package and an external application program (EAP) in a computer system as shown in Fig. 3. Although registering a callback on specific events and modeling an object using CAD package

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are obvious as disclosed in the prior art of record, this independent claim identifies the distinct combination of features of “said model includes output data from the EAP integrated into said model, the EAP located in a separate address space from the CAD package”, “registering a callback to the EAP from the CAD package”, “determining programmatically without user input that the modifying of the model requires recalculation of the output data from the EAP” and “programmatically sending new input data to the EAP and obtaining new output data from the EAP” as shown in Fig. 8, which has not been uncovered in a single teaching, nor would a modification of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim. Claim 1 is deemed allowable.

Dependent claims 2 and 5-7 are allowable as they depend on the allowed independent claim 1.

**2-3.** Independent claim 8 is directed at a method having a computer-aided design (CAD) program for manipulating a model of an object in a computer system as shown in Fig. 3.

Although registering a callback on specific events and modeling an object using CAD package are obvious as disclosed in the prior art of record, this independent claim identifies the distinct combination of features of “registering a callback that is called from the CAD program to access the EAP”, “the EAP located in a separate address space from the CAD program”, “determining programmatically without user input that the modifications to the model require new output data from the EAP”, “programmatically calling the EAP without user input and passing new input data to the EAP”, “the new input data used by the EAP to generate updated output data”, and “automatically integrating the updated output data into the CAD model without a user request” as shown in Fig. 8, which has not been uncovered in a single teaching, nor would a modification

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of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim. Claim 8 is deemed allowable.

Dependent claims 11-14 are allowable as it depends on the allowed independent claim 8.

2-4. Independent claim 15 is directed at a computer-aided design (CAD) system. Although registering a callback on specific events and modeling an object using CAD package are obvious as disclosed in the prior art of record, this independent claim identifies the distinct combination of features of “an external application program (EAP) that is located in a separate address space from the CAD program”, “a model of an object that contains output data from the EAP”, and “registering a callback for the EAP with the CAD program so that the CAD program calls the EAP when the output data from the EAP in the model needs updating as a result of changes to the model” as shown in Fig. 8, which has not been uncovered in a single teaching, nor would a modification of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim. Claim 15 is deemed allowable.

Dependent claims 17-18 are allowable as they depend on the allowed independent claim 15.

2-5. Independent claim 19 is directed at a computer-readable medium holding computer-executable instructions for performing a method running an external application program (EAP) and a computer-aided design (CAD) package in a computer system as shown in Fig. 3. Although registering a callback on specific events and modeling an object using CAD package are obvious as disclosed in the prior art of record, this independent claim identifies the distinct combination of features of “registering a callback to the EAP from the CAD package”, “determining programmatically without user input that the modifying of the model requires recalculation of the output data from the EAP, the EAP located in a separate address space from

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the CAD package” and “sending new input data to the EAP and obtaining new output data from the EAP” as shown in Fig. 8, which has not been uncovered in a single teaching, nor would a modification of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim. Claim 19 is deemed allowable.

Dependent claims 20 and 23 are allowable as they depend on the allowed independent claim 19.

**2-6.** Independent claim 24 is directed at a computer-readable medium holding computer-executable instructions for performing a method having a computer-aided design (CAD) program for manipulating a model of an object in a computer system as shown in Fig. 3. Although registering a callback on specific events and modeling an object using CAD package are obvious as disclosed in the prior art of record, this independent claim identifies the distinct combination of features of “registering a callback that is called from the CAD program to access the EAP”, “the EAP located in a separate address space from the CAD program”, “determining programmatically without user input that the modifying of the model requires recalculation of the output data from the EAP”, and “automatically updating the output data by calling the EAP with new input data without a user request” as shown in Fig. 8, which has not been uncovered in a single teaching, nor would a modification of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim. Claim 24 is deemed allowable.

Dependent claims 25-26 are allowable as they depend on the allowed independent claim 24.

**3.** Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***


4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day  
October 25, 2005 *H.D.*

  
KAMINI SHAH  
PRIMARY EXAMINER